

the receptacle, to be conveyed from the cistern, by which means, in case of danger from fire, water to be let into the receptacle itself, so as to fill it completely round and above the water-tight cells or cases. The cistern to contain a quantity of water more than sufficient to fill the interior of the receptacle; and means to be provided for replenishing the cistern in case of evaporation or other loss of water.

To render the flow of water into the receptacle self-acting in case of fire, the pipes of communication to be plugged with fusible metal: thus, should a neighbouring conflagration be such as to raise the water in the cistern to a boiling heat, the plugs would melt, consequently water would enter from the cistern to the receptacle, fill it, and preserve intact the contents of the cells and cases. After the danger ceased, the water would of course be pumped out of the receptacle.

The entrance would be most securely made through the roof and cistern above, by means of a cased trap-door closing water-tight, so as when not in use to be covered with water.

For giving light when needful to the interior of the receptacle, safety-lamps, encompassed by a double casing of glass, filled between with water; the pipes for supplying air, and for conveying away the foul air, to be siphon-shaped, so contrived that no sparks could issue from them.

Where such a receptacle could not conveniently be constructed under ground, the wall to be enclosed in an interior one at some distance from it; the interval to form a cistern filled with water, easily replenished like the cistern on the roof.

To dry and ventilate the receptacle, a ventilator, such, for instance, as that proposed by Dr. Hales a century ago, might be used; that is, a kind of wooden air-pump of very simple construction; means, at the same time, being provided to supply the place of moist air extracted by other air drawn from a chamber where it would be already dried and warmed.

As gunpowder, whether in bulk or in cartridges, was found to keep perfectly in Sir Samuel's water-tight cases, there can be no doubt but that parchments or papers might be equally well preserved in a suitable cell or case, supposing always that they were dry when inserted.

THE SUN CORRECTED?

THE authorities of the General Post-office, it appears, have recommended, and the various railway companies have agreed to, the uniform and literal adoption of *Greenwich time*, at the railway stations throughout the whole country; and it is even anticipated, that "should this uniformity of time become general on the railways in England, as will doubtless be the case, it must quickly be adopted by the nation," which adoption "will, of course, involve the necessity of a corresponding alteration of the public and other clocks," especially of those which are not regulated by the London Post-office authorities, as by the new sun of a new horological system, but merely by the old sun, which is thus about to be discarded for the brighter luminary of St. Martin's-le-Grand. In short, it really appears that we were wrong in lately giving the same announcement the credit of an interpretation certainly more correct in principle at least, by taking it for granted that what was really meant to be done was simply to regulate the true local time by the observations daily taken at Greenwich, instead of other local meridians. But we now find that it has been determined, chiefly for the sake of some more obvious or supposed convenience to the Post-office authorities in regulating the despatch and arrival of the mails, and in spite of much of an as yet somewhat less obvious but not the less real inconvenience, as well as error, and confusion,—to give the sun the lie direct, by declaring, and leading the nation at large to declare, that it is 12 o'clock noon at Holyhead, for instance, when the fact is that the sun has some twenty minutes' time to make up, or nearly so, before he reaches the meridian (or true 12 noon) at Holyhead. This go-a-head principle, in fact, is one that involves and affirmatives the celebrated proposition, that 'white is black and black is white;' for if the time at which the sun reaches the meridian at Greenwich be fixed upon and de-

clared to be the very time at which he reaches any other meridian of longitude within the three kingdoms, a false principle is established that virtually and essentially declares it to be high noon where the sun is either only rising or where he is already going down!—a principle which, however obvious some of its conveniences may appear to be, is radically wrong, and therefore ought at least to be first of all well considered by astronomers and others competent, in all its bearings and its consequences, if not also to form a subject of previous international railway arrangement.

We should like to know what astronomical observers at Liverpool, or any where else than Greenwich, will say to its being nationally declared, by the local practice in the general regulation of clocks and watches in the respective localities, that it is there twelve o'clock noon ere the sun has risen to his meridian, or that it is not noon till after he has gone down from that meridian; or that at the equinoxes it is twenty minutes, half an hour, or a whole hour, or in short any definite time with twenty-four hours' past, or short of, six, at the moment when the sun either rises or sets, any where else than at Greenwich,—or rather St. Martin's-le-Grand it should have been.

If astronomers countenance at all so heterodox a correction of the sun's divisions of time into day and night and noon and morning, we mistake much if they would not rather at least recommend some local centre in the very midst of the empire thus induced to fix and stereotype, or, as it were, electrotyping, by telegraph, a scientific error into one perpetual and conscious lie, or legion of diurnal lies, in the very face of the Sun himself: and such a mean or average centre could be easily found and as readily established, with a national observatory, and an electro-magnetic rapport with the telegraphic system, such as that already suggested in connection with the Greenwich noonday signal.

The questions at law which may originate in any attempt to derange the *only true time*, or true order of nature, in questions of time such as those connected with the starting of trains, the stoppage of banking or other branch establishments in different towns, &c., will be rather curious and interesting. But it is not our province here to enlarge on such topics. And moreover, although utterly false and indefensible in principle, really the electric telegraph is now so almost literally turning the world upside down, that the sun is getting quite into disgrace already as a notorious laggard, whose *ipse dixit* it is no wonder that St. Martin's-le-Grand at length despises and repudiates. A great demonstration of the capabilities of the telegraph, so far as now completed, took place on Tuesday week, on the recital of the Queen's speech by commission in the House of Lords. What may be called the national opening of the electro-telegraphic system was then accomplished, free to the public, by the Electro-Telegraphic Company. The speech was spoken in Parliament at one o'clock, and its electrical flash, in the broad sheets of the press, astonished and dazzled the eyes of the Edinburghers at half-past five!

Why even by the now more slow and cumbersome transit of the news by rail, the speech, together with a share of the debates of Tuesday, in the Wednesday morning papers, were in the hands of the Glasgow people, at a distance of 400 miles, by 8 p.m.—post horses from Beatoch, 60 miles, notwithstanding. When we consider indeed, that even the 'cool hundred' miles an hour, as we have once already hinted, has been realized by rail, our patience with the very moderately rapid flight of time meted out to us by his highness the Sun, may well be now exhausted by ambitious doings such as those of the electric telegraph; for in the latitude of London, midday passes westward only at the rate of less than five and a half times more, the sun here travelling westward (or the earth's rotation eastward) only at the rate of 644 miles an hour; so that in not very much more northern latitudes it would actually be no very difficult task for a railway express to gain time upon the sun in travelling westward, or at least to fly before the darkness and escape being ever later at any station on such a line than 12 o'clock at noon of one and the same eternal day, as it rose to noon on each such station of such a railway 'girdle round the earth'—thus more, in fact, than realizing the horological paradox of St. Martin's-

le-Grand! Though somewhat irrelevant in our columns, such reflections cannot but afford a just and striking idea of the comparative merits of the engineering and other means whereby "knowledge runs to and fro" over the face of the earth in the nineteenth century. These means must indeed be wonderful when they can so far sustain a comparison such as this, even relatively or ostensibly, with the tremendous rotary movement of the globe itself in our own intermediate and average parallel of latitude.

We may here observe that the Government bill to extend the time for the completion of railway works already begun, and to give directors a discretion in commencing new works, &c., has been read a first and second time, and ordered to be committed on Friday, the 3rd instant. The Chancellor of the Exchequer, in introducing the bill, disclaimed the idea that the money actually expended on railways had occasioned the recent difficulties, though he classed 'the railway mania' amongst the causes which led to these difficulties.

NOTES IN THE PROVINCES.

THE credence tables in Silksteade's Chapel, Winchester Cathedral, have been stripped, by the archaeological 'solution,' of the old Puritan whitewash with which they were defiled, and a group of painted figures has been disclosed by Mr. F. Baigent, one of the members of the British Archaeological Association. Though mutilated in some respects, three of a series of figures which appear to have been arranged in groups, under eight canopies, still exhibit a pretty fresh and entire subject, namely, "Christ and Peter on the Sea."—It is proposed to erect a memorial window in the parish church of Great Yarmouth, to be called the 'Martin Window,' in commemoration of an industrious and philanthropic needlewoman, whose labours amongst the reprobate in Yarmouth jail, from 1819 to 1843, appear to be gratefully remembered by the inhabitants of the town.—Great progress has been made during the last three years in the decoration of the Manchester parish church, and the enlargement of its accommodation. Amongst other decorations, the *Manchester Advertiser* describes the roof, which is of low pitch, as supported by seven four-centered beams, dividing it into six bays, which are again subdivided into thirty-two squares by longitudinal and transverse mouldings, at the intersections of which are carved wooden bosses 'of exquisite and wonderful workmanship,' no two of which are alike, though the unity of the whole roof is preserved. The wood-work of each bay, in fact, was a separate gift. All these bosses, says our authority, are now illuminated. The law of formation in the colouring is observed to be, all depths of blue; those not so far removed, red; the more prominent features, gold. The same law appears to hold throughout the roof, the panels being blue; the bordering fillet white; the succeeding cove red; and the mouldings below, whose section would show a trefoil, have the lowest white, and the others gold. The only deviation is in the principal beams, in each of which two members have been boldly treated in emerald green, and serve to relieve the eye after the blaze of the bosses. The principal beams show on each side five shields. On these shields are emblazoned the arms of the deans since the first foundation of the college. The glass in the west window of the south aisle was gathered there as the sole fragments of the acres of stained glass which once adorned this church.—Some improvements have recently been made in the Doncaster parish church, particularly where the chancel leads to the nave, hitherto encumbered with high doors and benches, which have been cleared away.—The local authorities at Gateshead are using commendable diligence in the purification of the borough. Dirty alleys and corners are being thoroughly cleansed, and the whitening-brush is in active and exemplary operation in hundreds of yards and houses, both in the hands of the corporation—by deputy, of course—and amongst the poorer classes, in whose hands they have placed it for the like purpose, and by whom even the loan of the brush and the gift of the whitewash have been thankfully and readily accepted.